

XVI.—On a Fossil Crustacean of the Order Isopoda, discovered by the Rev. P. B. Brodie in the Wealden formation of Britain. By M. MILNE EDWARDS*.

[THE discovery by the Rev. P. B. Brodie of fossil *Isopoda* in company with Insects in the Wealden beds of the Vale of Wardour is briefly noticed in the 'Geological Proceedings,' vol. iii. pp. 134, 780, and in the 'Ann. Nat. Hist.' vol. xi. p. 480. A full account of these curious remains will be given in the work on the Fossil Insects of the British secondary strata which Mr. Brodie is about to publish (see 'Ann. Nat. Hist.' vol. xiii. p. 63), and in the meantime the following notice of the Isopoda, by M. Milne Edwards, may interest our readers.]

Fossil Crustacea of the great division of *Edriophthalmia* have been but recently discovered by geologists, a very small number only being yet known, and that in a very imperfect manner. It appeared to me, therefore, to be desirable to indicate here the existence of two new species by which the museum of the Jardin des Plantes has been recently enriched.

The first of these was discovered in the Vale of Wardour in England by the Rev. P. B. Brodie, who has had the kindness to send me some specimens, and to request me to describe them. This species occurs in the Wealden beds of the county of Wilts, and appears pretty abundant in some localities. The specimens sent me by Mr. Brodie are about 12 centimetres long and 9 broad, but that gentleman has found some which are considerably larger, and which have, he says, nearly the dimensions of a small Trilobite. The body of these Crustaceans is very flat, and is composed of a series of segments terminated posteriorly by a sort of rounded buckler. Unfortunately the head is much injured in all the individuals which I have seen. I have not been able to perceive any traces of feet, but Mr. Brodie has detected them on other specimens, and I believe I can distinguish vestiges of the impressions left by the antennæ. I have no doubt then as to the order to which this fossil belongs; it is evidently an Isopod, and judging from its general conformation, it ought to be ranged in the family of the *Cymothoidæ*. I cannot, however, refer it to any of the genera hitherto established, and it appears to me that it cannot even be classed in any of the tribes of which this great division of the *Edriophthalmia* is composed. It seems to be intermediate between the genus *Serolis* and the erratic *Cymothoidæ*. It approaches the former in the enlargement of its body and the great development of the lateral or *epimeral* pieces compared to the medial or *tergal* lobe of the thoracic and abdominal rings, as well as in the lamellar form of

* Translated from the Annales des Sciences Naturelles.

the *epimera*, and the structure of the terminal buckler of the body; but it is essentially distinguished from *Serolis* by the considerable development and evident mobility of the first rings of the abdomen, a character which connects it with the *Ægæ* and other erratic *Cymothoidæ*. The several segments comprised between the head and the caudal buckler scarcely differ among themselves, so that there is no visible limit between the thorax and the abdomen; but they are twelve in number, and as the thoracic segments never exceed seven throughout the division of *Edriophthalmia*, we must conclude that the five hindmost ones belong to the abdominal portion of the body, which would consequently consist of six moveable segments, as in the genera *Ægæ*, *Nelocira*, &c. The sixth segment of the abdomen, which composes the terminal buckler already mentioned, is almost semicircular, and exhibits in its medial and anterior portion a tubercular swelling somewhat analogous to that observed in the same part in various *Sphæromatidæ*. It appears to me also that the margin of this piece is notched laterally to give insertion to an appendical portion placed in the same manner as in *Serolis*. We may also infer, from the arrangement of the lateral pieces of the other abdominal and thoracic segments, that the animal possessed the power of rolling itself into a ball like the *Sphæromatidæ*. Lastly, the structure of the head appears intermediate between that of the last-mentioned Crustaceans and that which is exemplified in *Serolis*, for the cephalic segment is widened like that of *Serolis*.

From the facts thus indicated it appears that this fossil Crustacean is probably distinct from all Isopods hitherto known, and ought to be classed in a separate generic division. I propose then to designate it by the name of *Archæoniscus Brodii*.

[The memoir then proceeds to describe a second species of fossil Isopod, found in the neighbourhood of Paris, and denominated by the author *Palæoniscus Brongniartii*.]

XVII.—*Notice of the Blind Fish, Cray-fish, and Insects from the Mammoth Cave, Kentucky*.*

At a meeting of the Belfast Natural History and Philosophical Society, January 17, 1844, Mr. Thompson, the President, called attention to specimens of the Blind Fish, Cray-fish, and Locusts from the great Mammoth Cave in Kentucky, procured in the month of May last specially for the Society by the kind attention of our townsman Gordon A. Thomson, Esq. on his visit to the cave. They are perhaps the first examples of their respective species brought thence to Europe.

* Communicated by Mr. Thompson.